may perhaps be due to their not having examined the same species.

The lateral vaginæ present no trace of distention, and there is nothing to indicate that they have served for the passage of the fœtus. They do not appear to have been of any other use than to receive the semen at the moment of copulation and to convey it to the neck of the uterus. They would thus merit the name of *spermatophorous vaginæ*, whilst the median vagina would be an *embryophorous vagina*. This opinion is confirmed by an interesting fact—namely, that the median vagina is covered with a pavement-epithelium, while the lateral vaginæ are clothed with a cylinder-epithelium.

From these facts it follows that the issue of the embryo does not in this case present that slowness which was ascribed to it by the opponents of Sir Everard Home; but it must not be supposed that the prevision of nature can be at fault; it has made up for this by the instinct of the mother. M. Jules Verreaux, during his residence in Australia, possessed a considerable number of Kangaroos, which he kept in confinement. By attentively watching them day and night, he succeeded in ascertaining the secret of their parturition. When the female feels that she is about to expel an embryo, she applies her two fore feet to each side of the vulva in such a manner as to separate its labia; she then introduces her muzzle into the vestibule and receives the embryo in her mouth. The fore feet are then at once removed to the margins of the marsupium in such a manner as to dilate its aperture; the head is passed into the pouch and deposits the embryo there. In a few moments it is attached to the teat. Messrs. Owen and Bennett had a suspicion of these facts; but the honour of the discovery is due to M. Jules Verreaux.—*Comptes Rendus*, January 15, 1866, pp. 146–148.

Descriptions of Twenty-one new Fishes from Port Jackson, and One from Port Natal. By Dr. F. Steindachner.

Dr. Steindachner has communicated to the Vienna Academy a paper on the Fishes of Port Jackson, in which he refers to sixty-six species. He describes the following as new:—

1. *Plectropoma myriaster*.—Body and fins densely covered with small round spots; length of head contained $2\frac{7}{10}$–$2\frac{4}{5}$ times, and depth of body 3 times, in the total length; caudal fin slightly rounded off.

D. 13/14–15; A. 3/8; L. lat. c. 100.

2. *Dules novemaculeatus*.—Dorsal with nine spines.

D. 9/10; A. 3/7–8; L. lat. 49–50.

3. *Scorpis Richardsonii*.—Profile of head concave; diameter of eye = $\frac{1}{4}$ length of head.

4. *Scorpæna Jacksoniensis*.—A milk-white spot upon and below

the last rays of the dorsal; body reddish brown, with black spots on the belly and ventrals.

D. 11–1/9; A. 3/5; L. lat. 50–52.

PARAPISTUS, g. n.—Form of body Scorpænoid, without occipital pit; head not scaly, armed with spines; pectoral fins with divided rays; trunk covered with ctenoid scales; branchiostegal rays seven; supplementary gills large; a cleft behind the fourth branchial arch.

5. *Parapistus marmoratus.*—Length of head contained 3 times, and depth of body $3\frac{1}{2}$ times, in the total length. Body light brown, with darker marblings.

D. 15/9; A. 3/5; P. 11; L. lat. 56–63.

6. *Sciæna Novæ Hollandiæ.*—All the fins, except the first dorsal, almost entirely covered with scales; depth of body=length of head; caudal rhombic.

D. 10–1/25–7; A. 2/7; L. lat. 50.

7. *Sphyræna grandisquamis.*—Length of head contained $3\frac{4}{5}$ times, and depth of body $8\frac{2}{5}$ times, in the total length; operculum rounded off; maxillary bone terminating in front of eye; dorsal commencing behind the apex of the pectorals.

D. 5–1/10; A. 1/9; L. lat. c. 82.

8. *Gobius Krefftii.*—Body with three rows of round spots; length of head contained four times, depth of body $6\frac{1}{3}$ times, in the total length; pectorals with several hair-like free rays.

D. 6–1/9; A. 1/9; L. lat. 36.

9. *Eleotris striata.*—Scales rather large; head much pointed in front, forehead very narrow; head, except operculum, scaleless; obsolete spots on the sides of the body.

D. 7–1/10; A. 1/10–11; L. lat. 35.

10. *Eleotris gymnocephalus.*—Head and nape without scales; forehead broad, flat; eye small; body yellowish, with the margins of the scales brownish; a large blackish spot before the caudal fin and upon the axillæ of the pectorals.

D. 7–1/9; A. 1/9; P. 19–20; L. lat. 39–40.

11. *Eleotris Richardsonii.*—All the fins intensely yellow; dorsals and caudal spotted or banded with brown; caudal short, rounded, a brown longitudinal band on each side of the body; cheeks and opercula scaled; head contained $4\frac{3}{8}$ times in the total length, and eye 5 times in that of the head.

D. 7–1/9; A. 1/9; L. lat. 37.

12. *Mugil breviceps.*—Eye without adipose membrane; head contained $5\frac{2}{5}$ times in the total length.

D. 4|1/8; A. 3/9; V. 1/5; P. 2/13; L. lat. 48.

Heterochœrops, g. nov.—Maxillary teeth as in *Chœrops*, for the most part amalgamated into a lamella; four free canine teeth in the intermaxillary and lower jaw in front of the lamella; sides of the head and ventral fins scaled; præoperculum toothed; cheeks not elevated; dorsal spines 11; lateral line not interrupted.

13. *Heterochœrops viridis.* Sides of body green; scaleless portion of fins dark greenish blue; fourth dorsal spine higher than any of the rest.

D. 11/11; A. 3/11; L. lat. 42.

14. *Odax Hyrtlii.*—Præoperculum toothed on the hinder margin; a very large indigo-blue spot between the last dorsal spine and the sixth soft ray of the same fin; caudal yellowish, with a violet margin; muzzle and cheeks with azure longitudinal streaks; first dorsal spine not elongated.

D. 18/12; A. 3/10; L. lat. 58.

15. *Lotella Schuettei.*—Length of muzzle equal to that of the eye; first dorsal rather higher than second; vertical fins with black borders; points of the rays in the same fins white.

D. 5/60–62; A. 55–56; V. 7; P. 25.

Richardsonia, g. nov.—Upper margin of mouth formed by the intermaxillary and maxillary bones; all the bones of the jaws, the tongue, vomer, palatal and pharyngeal bones armed with teeth. Ventrals of half the length of the body; dorsal at the commencement of the last third of the length; anal placed in front of the small adipose fin; eye of moderate size; supplementary branchiæ distinctly developed. Sp. *Richardsonia retropinna*, Rich. sp.

16. *Hemiramphus trilineatus.*—Intermaxillaries twice as long as broad; dorsal and anal of equal depth and length; ventrals short, without any elongated ray, situated nearer to the caudal than to the branchial aperture; three dark-blue longitudinal lines between the occiput and the dorsal.

D. 2/12; A. 2/10; P. 1/10.

17. *Atopomycterus Bocagei.*—Form of body roundish; head quadrangular; spines of various lengths, longest on the anterior frontal band, with two roots; head with small, belly with larger black spots.

D. 13; A. 12; P. 22; C. 1/7/1.

18. *Trygonoptera Mülleri.*—Disk elongate rotundate; snout blunt; breadth of disk equal to length of body; tail somewhat longer than body; dorsal at some distance in front of the caudal spine.

19. *Trygonoptera Henlei.*—Snout blunt; disk considerably broader than long; lengths of tail and body equal; dorsal fin placed immediately in front of caudal spine.

20. *Trygonoptera australis.*—Disk broader than long; tail rather longer than body. Posterior angle of disk obtusely rounded off; ventrals considerably smaller than in *T. testacea*; anterior margin of disk convex.

Schuettea, g. nov. (Fam. Psettoidei).—Body oblong, strongly compressed; dorsal and ventral lines also strongly compressed. Eye very large; muzzle short; cleft of mouth directed upward; lower jaw projecting; jaws, vomer, and palatal bones with small pointed teeth of equal length; præoperculum finely toothed; ventrals completely developed; dorsal and anal fins very long, opposite, with the spines densely pressed together; accessory branchiæ large; branchiostegal rays seven.

21. *Schuettea scalaripinnis.*—Depth of body contained $2\frac{4}{5}$ times in the total length, and eye $2\frac{1}{3}$ times in that of the head; operculum spinosely notched at its hinder margin; upper surface of the head with a moderately elevated crest.

D. 5/31; A. 3/28; P. 16; L. lat. c. 50.

(22.) *Mustelus natalensis.*—Teeth quadrangular, much broader than high, drawn out into thin rounded processes on the free margin; pectorals longer than broad; first dorsal commencing in front of the hinder margin of the pectorals, and reaching with its posterior point to the commencement of the ventrals.

From Port Natal.

Bericht Akad. Wiss. in Wien, March 8, 1866, pp. 50–54.

On the probable Existence of Accessory Eyes in a Fish. By Prof. R. Leuckart.

It has long been known that the bodies of certain *Scopelinidæ* are covered with very brilliant pigment-spots, grouped more or less regularly. Hitherto these spots had not been carefully examined; but Professor Leuckart, having investigated them anatomically in one species (*Chauliodus Sloani*), endeavours to interpret them as accessory visual organs. This would certainly be a very unexpected discovery in a Vertebrate animal, especially as the number of these eyes amounts to more than a thousand, disseminated partly upon the hyoid and its dependencies, and partly on the head and belly, where they form two parallel longitudinal rows. Professor Leuckart's opinion is founded upon the anatomical structure of the organs in question. They are in the form of small cylinders, the anterior half of which is occupied by a spherical body very like a crystalline lens. Behind this there is a sort of vitreous body. The layer of pigment which envelopes this supposed ocular bulb presents a silvery lustre and a structure identical with that which lines the eyes of the *Plagiostomi*. It has, however, been impossible to detect on the nerve of the organ any membranous expansion acting the part of a retina; but it must not be forgotten that the observations were made upon an animal preserved in spirits. The genus *Stomias* presents exactly similar organs. This genus has hitherto been placed among the *Esocidæ*, but erroneously, according to Leuckart: it must be united with the *Scopelinidæ*.—*Bericht Versamml. deutsch. Naturf. und Aerzte*, 1865, p. 153; *Bibl. Univ.* January 1866, *Bull. Sci.* p. 94.